

# DEDICATION

NEW JERSEY  
STATE HIGHWAY  
DEPARTMENT

## RECONSTRUCTED HACKENSACK RIVER BRIDGE

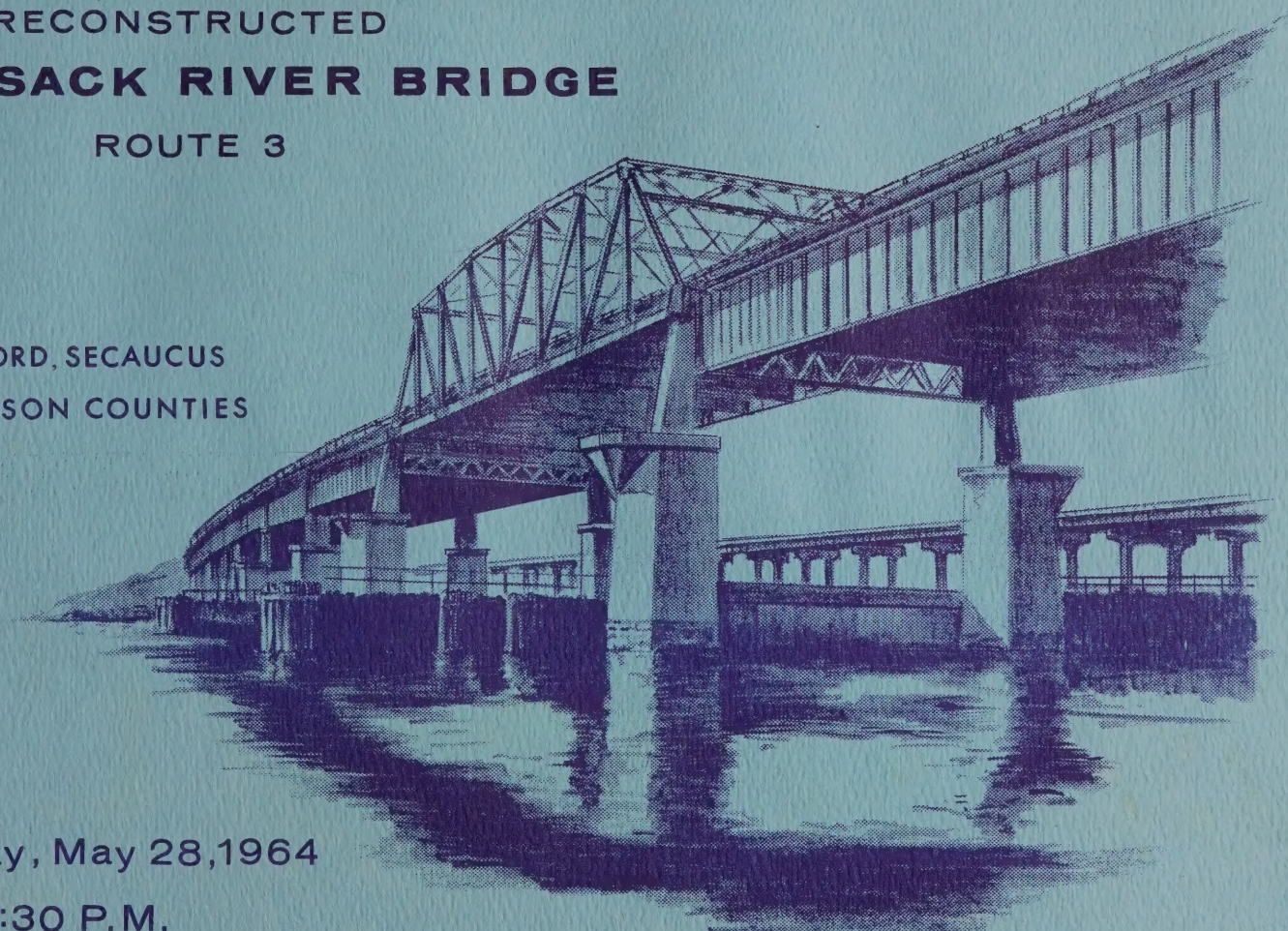
ROUTE 3

EAST RUTHERFORD, SECAUCUS

BERGEN AND HUDSON COUNTIES

Thursday, May 28, 1964

9:30 P.M.





## INTRODUCTION

Dedication of the Reconstructed Route 3 Bridge over the Hackensack River marks the virtual completion of a major phase in the \$35 million program for improvements to Route 3 from the New Jersey Turnpike to Route U.S. 46 in Passaic County. The Bridge Project is the final major segment to be incorporated in a completely integrated network of roadways, ramps and bridges designed to safely and expeditiously carry traffic between points of origin and destination east and west of the river.

Upon completion of the new bridge upriver in July 1963, the original bridge, constructed in 1934, was at once closed to traffic and work was started on complete reconstruction of its deck at a higher elevation. About 500 tons of steel and 400 cubic yards of concrete counterweights were removed from each leaf of the double leaf bascule draw-span.

To permit reconstruction of the draw-span as a fixed structure with 50 feet clearance, the State Highway Department had to provide higher matching roadbeds. This elevation also required the addition of one 60 foot span at each end of the bridge.

A unique engineering feat was originated during reconstruction to lift the old bridge steel frame as much as 11 feet from its original position to the new grade. Each span was raised using hydraulic jacks and cantilever cranes, and held in place until the new steel supports were installed. This technique saved the State an estimated \$800,000.

The new center section, a 185 foot long welded steel truss, was pre-assembled off the site, and floated to the Bridge on barges, then hoisted into position. The bridge deck, of reinforced concrete, provides four lanes for eastbound traffic. Estimated cost of the reconstruction is \$2,707,525.

This is the third New Jersey bridge to be lighted by low level fluorescent tubes built into the guard rails on either side of the roadway. The low level lighting is an original design of the Highway Commissioner and developed by the Department's Electrical Bureau. It represents the first scientifically uniform illumination pattern ever produced for a roadway from a low level source. One of its most obvious advantages is the lessening of headlight glare in foggy weather.

Low level lighting has proved successful on two other bridges: the new westbound Route 3 bridge upriver from this bridge, and the Route 72 bridge over Manahawkin Bay. Both motor vehicle and marine

craft operators report that low level lighting is far superior to the standard type of high level overhead lighting. Even aircraft pilots have noted its unique appearance and put it to work as landmarks.

Another integral part in this river crossing project was the construction of approach roadways to the west of the bridges, and an interchange at the convergence of Routes 3 and 20 in East Rutherford, Bergen County. These facilities will be in full use, with traffic fully separated east and westbound, upon the opening of this bridge. Within 10 days all work will be completed. This construction cost approximately four million dollars.

The eastern approaches from Paterson Plank Road to the bridges, still another step in the program, were built at a cost of 1.2 million dollars.

On both sides of the bridge, the approach highways provide one-way traffic. But on the east side, the Highway Department also provided for connections with local streets in Secaucus, and a pedestrian overpass spanning the highway at 7th Avenue.

Further east, Route 3 has been dualized from Paterson Plank Road, Secaucus, to Tonnelle Avenue, North Bergen Township. Three lanes of traffic will be carried in each direction, separated by a center island or concrete barrier curb. An interchange was built to connect Route 3 and Paterson Plank Road. Marginal roads will provide safe access to interchange ramps and local properties.

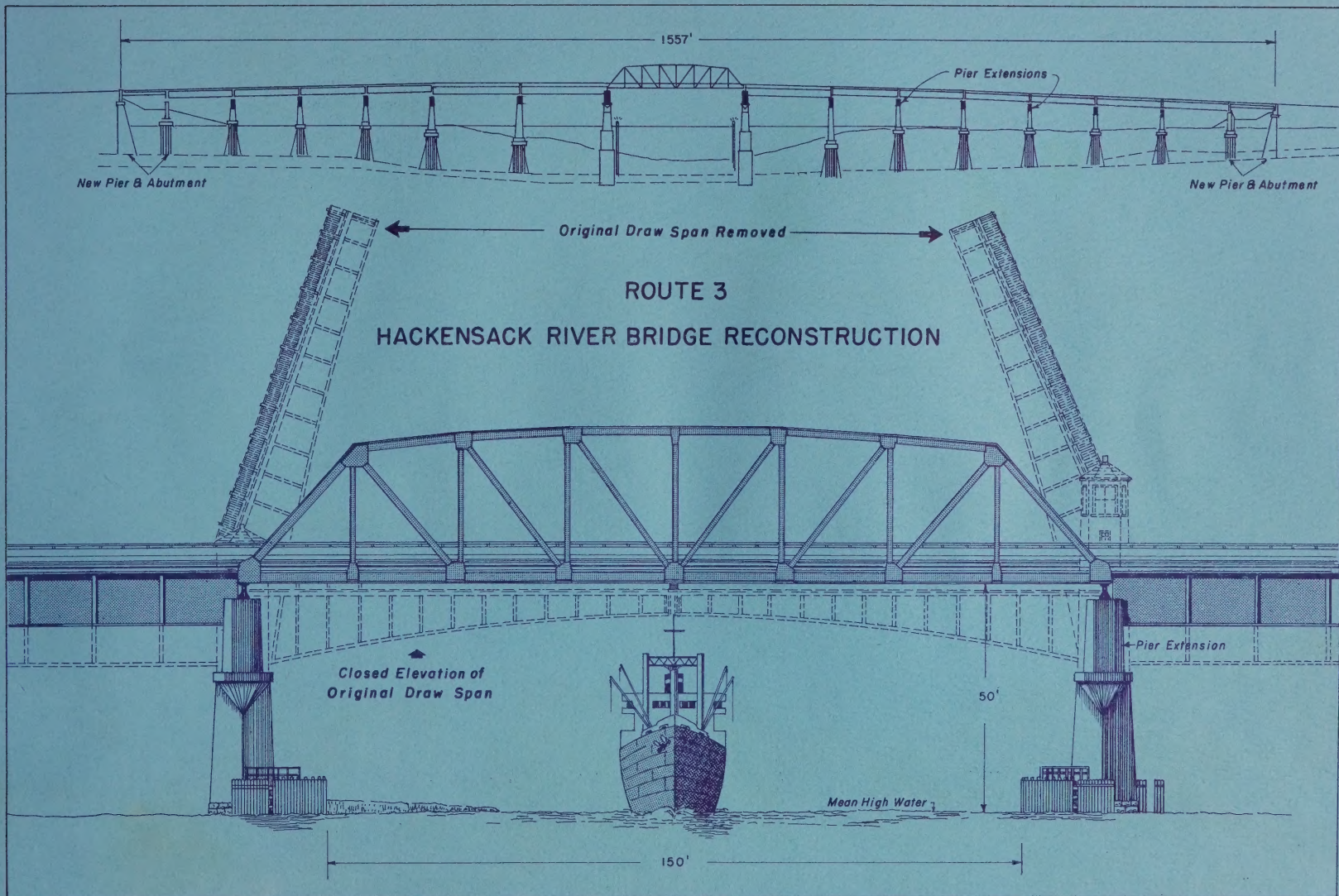
The Turnpike bridge crossing Route 3 was widened and lengthened to permit dualization of Route 3, as well as for improvements to the Turnpike Interchange.

East of the Turnpike, a set of interchanges have been constructed for Paterson Plank Road and Route 3 to eliminate hazardous turns, and a connection between Route 3 and Tonnelle Avenue was provided. Cost of this work was approximately four million dollars.

From the Turnpike connection to the Lincoln Tunnel approaches, Route 3 will be rebuilt to freeway standards and designated Interstate Route 495. This construction will cost about 14.8 million dollars.

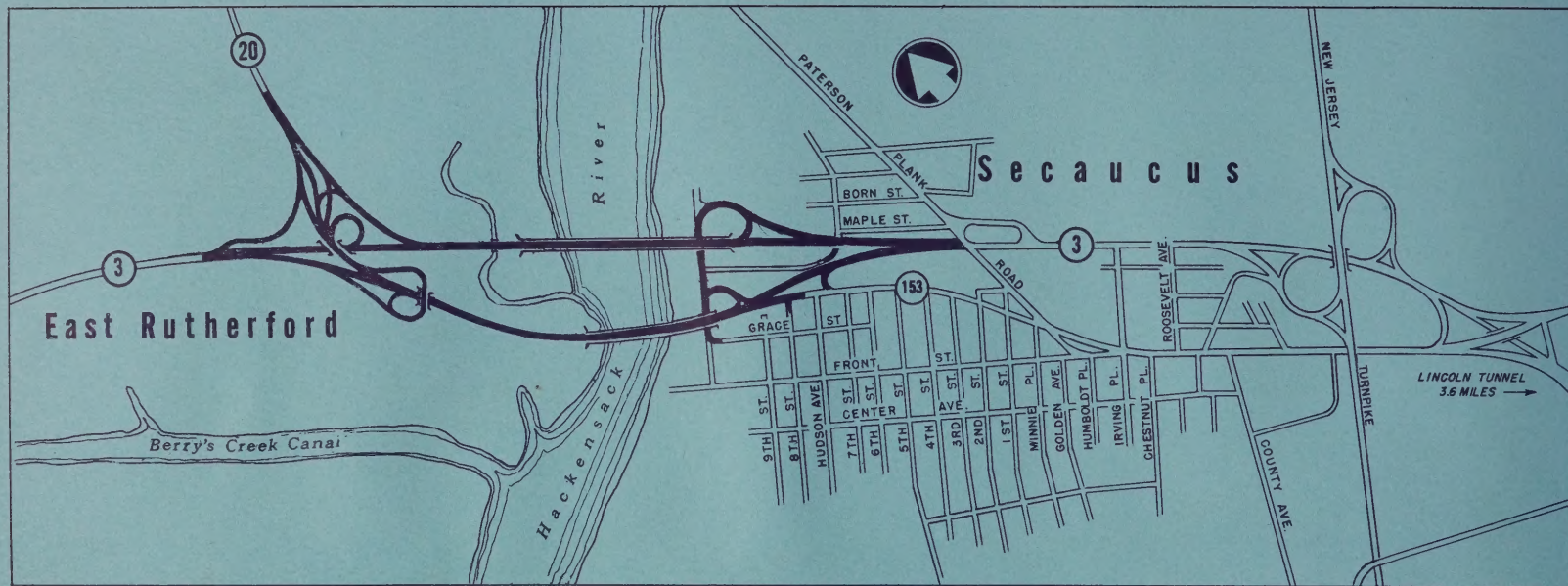
Costs of the Route 3 improvements are being shared equally by the Federal Bureau of Public Roads and the State of New Jersey. However, the Federal Bureau will pay 90 percent of construction of Interstate Route 495.





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The heavy black lines show the construction included in the major program for revitalizing Route 3 crossing the Hackensack River between East Rutherford and Secaucus.

Based on present figures of 82,000 vehicles average daily traffic, the 1980 estimated figure soars to 164,000 crossings.

The upper bridge, a completely new structure, was opened to traffic in July, 1963. The lower bridge, the old draw span, was reconstructed and opened to traffic in May, 1964. Each bridge carries four lanes of traffic one way; the new bridge westbound, the reconstructed bridge eastbound.



... *Program* ...

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MUSICAL SELECTIONS 9:15 P.M. .... SECAUCUS FIRE DEPT. BAND

PRESIDING ..... HON. DWIGHT R. G. PALMER  
*Commissioner, N. J. State Highway Dept.*

THE NATIONAL ANTHEM ..... SECAUCUS FIRE DEPT. BAND

INVOCATION ..... THE REVEREND MARVIN B. CADY  
*First Reformed Church of Secaucus*

WELCOME AND INTRODUCTION  
OF HONORED GUEST ..... COMMISSIONER DWIGHT R. G. PALMER

FOR BERGEN COUNTY ..... HON. MARION WEST HIGGINS  
*Assemblywoman, Bergen County*

FOR HUDSON COUNTY ..... HON. WILLIAM F. KELLY, JR.  
*N. J. State Senator, Hudson County*

MUSICAL INTERLUDE ..... SECAUCUS FIRE DEPT. BAND

FOR THE STATE HIGHWAY DEPARTMENT ..... COMMISSIONER DWIGHT R. G. PALMER

ADDRESS OF DEDICATION ..... HON. RICHARD J. HUGHES  
*Governor, State of New Jersey*

MUSICAL INTERLUDE ..... SECAUCUS FIRE DEPT. BAND

BENEDICTION ..... THE REVEREND ANDREW FRYE  
*Church of the Immaculate conception*

RIBBON CUTTING CEREMONY FOLLOWED BY AUTOMOBILE PROCESSION OFF BRIDGE



## HACKENSACK RIVER BRIDGES

### STATISTICS

### NEW BRIDGE

### RECONSTRUCTED BRIDGE

LOCATION .....	Town of Secaucus, Hudson County; Borough of East Rutherford, Bergen County	
WORK STARTED .....	August 21, 1961	July 15, 1963
WORK COMPLETED .....	June 21, 1963	April 30, 1964
LENGTH .....	2,626.70 feet	1557 feet
WIDTH .....	Overall 59 feet between curbs 53 ft.	Overall 59 feet between curbs 53 ft.
SHIP CLEARANCE .....	Horizontal 150 feet (ship channel) vertical 50 feet (mean high water)	Horizontal 150 feet vertical 50 feet
NUMBER OF LANES .....	Four lanes westbound	Four lanes eastbound
FOUNDATION .....	Reinforced concrete piers resting on rock. Approach span piers supported on steel piles driven to rock	Existing piers built up with prefabricated steel pedestals
SUPERSTRUCTURE .....	24 spans ranging in length from 80 to 140 feet, and one 190 foot center span over river channel.	16 spans, including 2 new 60 foot spans, one at each end of bridge. Center span 185 feet over river channel
TRAFFIC .....	1963 (2 way) 82,000 vehicles average daily; 30,000,000 per year.	1962 (2 way) 80,000 vehicles average daily; 30,000,000 per year
LIGHTING .....	Low level fluorescent tubing built into the guard rails on each side of the bridges, designed to produce uniform, glare free illumination, and to reduce headlight glare in foggy weather.	
ESTIMATED 1980 TRAFFIC .....	80,000 vehicles average daily in each direction; a total of 59,000,000 crossings per year	
COST OF CONSTRUCTION .....	\$4,730,000	\$2,707,525

Shared equally by the Federal Bureau of  
Public Roads and the State of New Jersey





# CONTRACT DETAILS

## NEW BRIDGE (Opened 1963)

### SUBSTRUCTURE

#### Primary Contractor

J. Rich Steer, Inc.  
New York, N.Y.

#### Subcontractors

Lightning Electric Service Co.  
Newark, N.J.  
Conduit System

P. T. & L. Construction Co., Inc.  
Paramus, N.J.  
Excavation

### SUPERSTRUCTURE

#### Primary Contractor

Phoenix Bridge Co.  
Phoenixville, Pa.

#### Subcontractors

Cayuga Construction Corp.  
New York, N.Y.  
Parapet & Scuppers

B-B Electrical Contractors, Inc.  
Paterson, N.J.  
Metal Railing & Navigation Lighting

Daniel Klockner, Jr., Inc.  
Rockaway, N.J.  
Light Poles & Traffic Light Structural  
Steel Supports

## RECONSTRUCTED BRIDGE (Opened 1964)

#### Primary Contractor

Cayuga Construction Corp.  
New York, N.Y.

#### Subcontractors

L. & J. Concrete Corp.  
Astoria, L. I., N.Y.  
Concrete abutments, spans

Wm. F. Hegarty, Inc.  
Whippany, N.J.  
Removal steel spans  
Erection of structural steel

George Campbell & Co.  
Flushing, L. I., N.Y.  
Epoxy waterproofing, sand blast

Broadway Maintenance Corp.  
Newark, N.J.  
Installation of low level lighting  
and Navigation lighting

Frapaul Construction Co., Inc.  
Roselle Park, N.J.  
Whiteface Concrete Curbing



# HACKENSACK RIVER BRIDGES

## NEW JERSEY STATE HIGHWAY DEPARTMENT

DWIGHT R.G. PALMER  
*Commissioner*

JAMES R. SCHUYLER  
*State Highway Engineer*

SVEN I. HEDIN  
*Director and Chief Bridge Engineer*

I. OLIVER DOLL  
*Supervisor, Bureau of Road Construction*

DORLAND J. HENDERSON  
*Supervisor, Bureau of Electrical Operations*

## U.S. BUREAU OF PUBLIC ROADS

J.A. SWANSON  
*Regional Engineer*

H.P. BESCHENBOSEL  
*Division Engineer*

G.A. NOVECK  
*Division Bridge Engineer*